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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application:

Application Number: 09/412,727

Filing Date: October 5, 1999

Title: Kit for Updating Digital Data Processing System

First Named Inventor: Eric Aubry

Attorney Docket: DEN226

Examiner: Regina Liang

Art. Unit: 2674

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RESPONSE

Sir:

This letter responds to a Final Office Action bearing a mailing date of January 9, 2004.

In the Office Action the examiner rejected pending Claims 4 and 5 Under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al (IE80421 hereinafter Hamilton) in view of Birdwell (USPN 4,906,117 hereinafter Birdwell).

The examiner stated that Hamilton discloses a process and kit for a computer keyboard having a Euro (supplementary symbol) key in an input keyboard by redesignating an existing input key. Hamilton does not disclose updating the system one single time for rendering resident the Euro symbol in the system to make the Euro symbol available for direct use by the working system and the software. However, Birdwell teaches a user remappable keyboard by updating the system one single time for rendering resident the rearranged keycaps in the system to make the rearranged keycaps available for direct use by the working system and the software. Based on the above the examiner concludes it would have been obvious to one having ordinary skills in the art at the time the invention was made to modify Hamilton to update the system one single time for rendering resident the Euro symbol in the system to make the Euro symbol available for direct use by the working system and the software as taught by Birdwell so as to provide a keyboard in which each potential key location can be selectively defined and any key position can be provided with any desired function.

It is important to note that computers of the PC type, especially when they use the MS Windows operating system, comprise several processing levels for the data delivered by the keyboard. As is known in the art, a code is normally assigned to a key of the keyboard and this code is transmitted to the operating system. The software normally uses the same codes as the operating system.

A known solution to adapt an old version of the working system to new software is to provide a conversion table. This means the code generated by the keyboard is received by the operating system as such and sent to the software. Only at that stage the software may use conversion tables for converting the transmitted code into a predetermined character.

As regards to the Euro, for example, the symbol "€" which is generated by the keys [Alt Gr] + [E], the code is generated from the keyboard to the operating system. It is this code transmitted to a software which must utilize a conversion table for generating the non-standard symbol "€" on the screen.

There are simple programs which use the BIOS directly for rendering the codes as well as for showing them as readable symbols. Here resides the problem to be solved by the present invention: the BIOS does not convert the code into a readable symbol but shows only a general symbol "█" for all not defined codes. In particular, this problem is present in program editor applications which do not use the conversion tables.

The use of all forms of "drivers" or conversion tables does not serve to resolve this problem because BIOS does not use them. It is only at a more sophisticated level, such as word processing software, that the conversion tables as described in Hamilton can partially solve the problem of the supplementary characters.

The problem discussed above is solved by the present invention which proposes a means for a quite simple modification which, one single time, modifies and completes the information system to render resident the supplementary functions. The modification is made one time and becomes resident in the machine of the system. Thus, not only the keyboard, but also the software can directly use the new character in the form of the symbol.

Applicant's specification describes a process for updating a numerical system for processing data, such as computer or PC for integrating for use a non-existing supplementary symbol, characterized in that for updating the system one single time for rendering resident in the system the supplementary symbol and make it available for direct use of the supplementary symbol by the operating system as well as the software.

The applicant's specification also describes a kit which comprises software as well as a keyboard replacement key.

Neither Hamilton nor Birdwell mentions that the system is updated one time for rendering resident in the system the supplementary symbol with the object to make

available the supplementary symbol for direct use by the operating system as well as the software.

Hamilton (IE80421) describes supports readable by a computer and containing a "font file" comprising a new or special character such as the Euro symbol. However, this "font file" is used by the operating system and the software, but is not rendered resident in the system because once the file has been loaded into the computer, it still must be selected by an application software to assign the symbol to a key of the keyboard.

The claims distinguish from Hamilton in rendering resident in the system supplementary symbol for making it available for direct use by the operating system and the software. A person skilled in the art tries thus to resolve the problem to know how he could render useable a supplementary symbol by the operating system and the software. Although the indication of a "font file" can be found in Hamilton, it is not rendered resident in the system, for once the files are loaded into the computer it must still be selected by an application software to assign the symbol to a key of the keyboard as stated above.

Additionally, Birdwell provides no indication of how to render resident a supplementary symbol in the system.

As stated above, in Birdwell a keyboard is described comprising keycaps which may be removed and interchanged, the output signals of which is determined by the software. But it is only the key arrangement on the keyboard that can be modified; the integration of a new symbol is not provided in Birdwell. When a person skilled in the art tries to adapt the keyboard of Birdwell to resolve the problem to know how to render useable a supplementary symbol by the operating system as well as the software, he will find information in Hamilton regarding the use of "font files".

As described above, these "font files" disclosed in Hamilton do not absolutely correspond to the solution according to the subject invention which provides to render resident in the system the supplementary symbol in an attempt to make available the supplementary symbol for use both by the operating system and the software.

As can be seen by referring to Hamilton and Birdwell, there are other known methods which can render useable a supplementary symbol by the operating system and software without mentioning a sole time the solution according to the present invention. As a solution of the problem is not evident, plainly inventive activity is required to come to the invention as claimed.

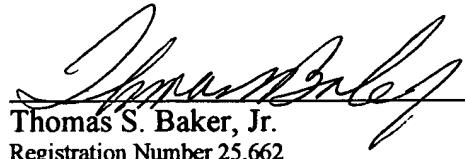
Although a person skilled in the art would find ideas to use known "font files", there is no reference at all to the fundamental idea of the present invention which provides to make available the supplementary symbol for direct use by the operating system as well as the software. Applicant's Claims 4 and 5 accordingly are believed patentable over the cited combination of Hamilton and Birdwell or of Hamilton and Birdwell singularly. Birdwell has a reconfigurable keyboard which is customized, i.e., directed to a particular application for a customer, which has to be reconfigured for

another application of this or that of another customer, but which may not be used in running different applications on one and the same computer. A lookup table or conversion table is used to this effect.

Applicant respectfully submits that pending Claims 4 and 5 are now in condition for allowance. Accordingly, applicant respectfully requests the examiner to reconsider his final rejection of these claims.

Respectfully submitted,

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Thomas S. Baker, Jr.
Registration Number 25,662
1371 West 3rd Avenue
Columbus, Ohio 43212
Telephone Number: 614/488-2202
Facsimile Number: 614/488-2232